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AMENDMENT UNDER ARTICLE 19(1)

CLAIMS

1. An epitaxial growth method comprising: supporting a substrate for growth with a substrate supporter, forming a compound semiconductor layer comprising 3 or 4 elements on the substrate for growth by metal organic chemical vapor deposition, polishing the substrate so that an angle of gradient is 0.00° to 0.03° or 0.04° to 0.10° with respect to (100) direction in an entire effective area of the substrate, and forming the compound semiconductor layer to be $0.5\mu\text{m}$ thick or more on the substrate by using the substrate for growth.

2. The epitaxial growth method as claimed in claim 1, further comprising: forming a buffer layer on the substrate for growth, and forming the compound semiconductor layer on the buffer layer.

3. The epitaxial growth method as claimed in claim 1 or 2, wherein the compound semiconductor layer is a III-V group compound semiconductor layer containing at least As.

4. The epitaxial growth method as claimed in claim 3, wherein the compound semiconductor layer is an InGaAs layer

or an InAlAs layer.

5. The epitaxial growth method as claimed in claim 3 or 4, wherein the substrate for growth is a semiconductor crystal substrate having dislocation density of 5000cm^{-2} or less.

6. The epitaxial growth method as claimed in claim 5, wherein the substrate for growth is an InP substrate.

7. A substrate for epitaxial growth used for an epitaxial growth method in which a compound semiconductor layer comprising 3 or 4 elements is formed on the substrate for growth by metal organic chemical vapor deposition, wherein an angle of gradient is 0.00° to 0.03° or 0.04° to 0.10° with respect to (100) direction in an entire effective area of the substrate.

8. The substrate for epitaxial growth as claimed in claim 7, wherein the substrate is a semiconductor crystal substrate having dislocation density of 5000cm^{-2} or less.

9. The substrate for epitaxial growth as claimed in claim 7 or 8, wherein the substrate is an InP substrate.